Appl. No. 10/536,635 Amdt. dated May 22, 2009 Reply to Office Action of January 22, 2009

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

## Listing of Claims:

- (Currently amended) A method for identifying a compound that modulates aging, the method comprising the steps of:
- (i) contacting the compound with a lipid binding protein-7 (lbp-7) polypeptide or a cell that expresses the lbp-7 polypeptide, wherein the lbp-7 polypeptide has at least 95% identity to the lbp-7 protein in Tables 3 and 6 and wherein the lbp-7 polypeptide is encoded by a nucleic acid that is expressed in C. elegans and is upregulated when daf-16 activity is inhibited and is downregulated when daf-2 activity is inhibited—is encoded by a nucleic acid that hybridizes under stringent conditions to wherein stringent conditions are incubation in 5X SSC, 1% SDS at 65°C followed by washing in 0.2X SSC, and 0.01% SDS at 65°C; and
- (ii) determining the effect of the compound upon the lbp-7 polypeptide or the cell that expresses the lbp-7 polypeptide and comparing it to a control sample without the compound, wherein a difference from the control indicates that the compound modulates aging.
- 2. (Previously Presented) The method of claim 1, wherein the nucleic acid encodes the lbp-7 polypeptide of Table 3 and 6.
- (Previously Presented) The method of claim 1, wherein the lbp-7
  polypeptide binds fatty acids.
  - (Canceled)
  - (Canceled)
- (Previously Presented) The method of claim 1, wherein the effect is determined in vitro.

Appl. No. 10/536,635

Amdt. dated May 22, 2009

Reply to Office Action of January 22, 2009

- 7. (Canceled)
- 8. (Canceled)
- (Canceled)
- (Previously Presented) The method of claim 1, wherein the cell that expresses the lbp-7 polypeptide is contacted with the compound.
- (Currently Amended) The method of claim 10, wherein the host cell is a C. elegans cell, a mouse cell, a rat-cell, or a human cell.
  - 12. (Canceled)
  - 13. (Canceled)
- (Previously Presented) The method of claim 10, wherein the effect is determined by measuring transcription of the nucleic acid.
- (Previously Presented) The method of claim 10, wherein the effect is determined by evaluating an age-associated parameter.
- 16. (Previously Presented) The method of claim 10, wherein the effect is determined by evaluating expression of an age-associated gene.
- (Original) The method of claim 15, wherein the age-associated parameter is lifespan.
- (Original) The method of claim 1, wherein the modulation is inhibition of aging.
- 19 (Previously Presented) The method of claim 1, wherein the compound is an antibody, an antisense molecule, an RNAi molecule, or a small molecule.

Appl. No. 10/536,635 Amdt. dated May 22, 2009 Reply to Office Action of January 22, 2009

- (Previously Presented) The method of claim 18, wherein inhibition of aging occurs by inhibition of expression or activity of the lbp-7 polypeptide.
- 21. (Currently amended) A method for evaluating a compound for modulation of aging, the method comprising the steps of:
- (i) contacting the compound with a lipid binding protein-7 (lbp-7) polypeptide, wherein the polypeptide has at least 95% identity to the lbp-7 protein in Tables 3 and 6 and wherein the lbp-7 polypeptide is encoded by a nucleic acid that is expressed in *C. elegans* and is upregulated when daf-16 activity is inhibited and is downregulated when daf-2 activity is inhibited is encoded by a nucleic acid that hybridizes under stringent conditions to wherein stringent conditions are incubation in 5X-SSC, 1% SDS at 65°C followed by washing in 0.2X SSC, and 0.01% SDS at 65°C;
  - (ii) determining the effect of the compound upon the lbp-7 polypeptide; and
- (iii) contacting a host or host cell expressing the lbp-7 polypeptide with the compound and evaluating an age-associated parameter of the host or host cell and comparing it to a control without the compound, wherein a difference from the control indicates that the compound modulates aging, thereby evaluating a the compound for modulation of aging.
- (Previously Presented) The method of claim 21, wherein the nucleic acid encodes the lbp-7 polypeptide of Table 3 and 6.
- (Previously Presented) The method of claim 22, wherein the lbp-7
  polypeptide binds fatty acids.
  - (Canceled)
  - (Canceled)
- (Previously Presented) The method of claim 21, wherein the lbp-7
  polypeptide is recombinant.

Appl. No. 10/536,635 Amdt. dated May 22, 2009 Reply to Office Action of January 22, 2009

 (Previously Presented) The method of claim 21, wherein the compound is an antibody, an antisense molecule, an RNAi molecule, or a small molecule.

28-30. (Canceled)

- 31. (Previously Presented) The method of claim 21, wherein the effect is determined in vitro.
- 32. (Previously Presented) The method of claim 21, wherein the effect is determined in a eukaryotic host organism or host cell.
- (Previously Presented) The method of claim 21, wherein the ageassociated parameter is lifespan.

34-45. (Canceled)

- 46. (Currently amended) A method of identifying a compound that modulates aging, the method comprising the steps of:
- (i) contacting a test compound to a living or biochemical system that comprises a C. elegans lipid binding protein-7 (lbp-7) protein, wherein the lbp-7 protein has 95% identity to the lbp-7 protein in Tables 3 and 6 and wherein the lbp-7 polypeptide is encoded by a nucleic acid that is expressed in C. elegans and is upregulated when daf-16 activity is inhibited and is downregulated when daf-2 activity is inhibited; and
- (ii) evaluating expression or activity of the lbp-7 protein and comparing it to a control sample, wherein a difference from the control indicates that the compound modulates lbp-7 protein expression or activity; and
- (iii) evaluating an aging-associated parameter of a C. elegans organism contacted with the test compound and comparing it to a control sample, wherein a difference from the control indicates that the compound modulates aging.

47-49. (Canceled)

Appl. No. 10/536,635

Amdt. dated May 22, 2009

Reply to Office Action of January 22, 2009

- (Previously Presented) The method of claim 1, 21, or 46, wherein a plurality of compounds is assayed.
  - 51-52. (Canceled)
- (Original) The method of claim 50, wherein the plurality of compounds comprises a library of structurally related chemical compounds.
  - 54-62. (Canceled)